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Data Sheet

August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N4431B RF Electronic Calibration Module, 9 kHz to 13.5 GHz

Keysight / Agilent N4431B 4-Port RF Electronic Calibration Module (ECal) The N4431B is a 4-port RF ECal module covering 9 kHz to 13.5 GHz. Connector options include 3.5 mm (Opt 010), Type-N 50 Ω (Opt 020), 7-16, or mixed. USB control for PNA/ENA multiport calibration with a single connection. The N4431B is a 4-port RF ECal module covering 9 kHz to 13.5 GHz. Connector options include 3.5 mm (Opt 010), Type-N 50 Ω (Opt 020), 7-16, or mixed. USB control for PNA/ENA multiport calibration with a single connection.



MODEL

**Keysight / Agilent
N4431B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N4431B

LISTING

<https://aumictechlabs.com/products/n4431b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight (Agilent) N4431B RF Electronic Calibration Module automates VNA calibration across 9 kHz to 13.5 GHz using single-connection electronic calibration. This 4-port ECal module eliminates the time and operator error inherent in mechanical calibration methods, delivering NIST-traceable accuracy with highly repeatable impedance states and solid-state switching reliability. A single USB connection to Keysight PNA, ENA, or FieldFox instruments performs complete 3- or 4-port calibration instantly. The module transfers factory calibration data directly to the analyzer, significantly reducing connector wear and calibration cycle time. Operating across 0 to 55°C, the N4431B maintains stable performance in lab and field environments. Technical

Specifications Frequency Range: 9 kHz to 13.5 GHz Impedance: 50 ohms Port Configuration: 4-port Connectors: Available in 3.5 mm, Type-N 50 ohm, and 7-16 DIN configurations (mixed-connector options supported) Control Interface: USB Operating Temperature: 0 to 55°C Dimensions: 19.0 cm × 25.4 cm × 7.6 cm Weight: 2.2 kgKey Features Single-connection calibration for both 3- and 4-port measurements NIST-traceable calibration accuracy Highly repeatable impedance states via solid-state switching Minimal connector wear compared to mechanical kits Significantly faster calibration than traditional methodsCompatibility & Integration Supported Instruments: Keysight PNA, ENA, and FieldFox series Firmware Requirements: PNA Series Revision 2.5 or higher; ENA Series - for capabilities below 300 kHz Calibration Kit Compatibility: 85050, 85052, 85054, 85056, 85057, 85054B, 85056B, 85057B, 85058B, 85059B Available Configurations: N4431B-010 (four 3.5 mm), N4431B-020 (four Type-N), mixed-connector options including N4431B-101 (Port A: 3.5 mm) and additional port variants

Features & description

From manufacturer datasheet

Features

• Ports: 4 • Frequency range: 9 kHz to 13.5 GHz (7-16 options limit to 7.5 GHz) • Opt 010: four female 3.5 mm • Opt 020: four female Type-N 50 Ω • Mixed ports: 3.5 mm / Type-N / 7-16 via port option codes 101–406 class • Calibration: full 1–4 port, single connection • Switching: solid-state • Interface: USB direct control with PNA and ENA series • Characteristic performance examples (Opt 010 / 020 tables in OEM datasheet) include directivity typically 40–55 dB class and reflection tracking on the order of ± 0.03 to ± 0.11 dB depending on band

Applications

• Fast multiport RF VNA calibration • Mixed-connector multiport systems • Reduced mechanical standard wear

N4431B Characteristics / Specifications

PARAMETER	VALUE
Model	N4431B
Manufacturer	Keysight / Agilent
Instrument Type	4-Port Electronic Calibration Module
Alias	N4431B; Agilent N4431B; Keysight N4431B
Frequency range	9 kHz to 13.5 GHz (7-16 options limit to 7.5 GHz)
Ports	4
Opt 010 connectors	3.5 mm (f)
Opt 020 connectors	Type-N 50 Ω (f) 7-16 high frequency limit: 7.5 GHz
Interface	USB direct control with PNA and ENA series
Calibration	1–4 port single connection Notes Specs from Keysight ECal technical overview and N4431B product literature. Confirm connector option (010/020/mixed) and cal due date on the module.
Opt 010	four female 3.5 mm
Opt 020	four female Type-N 50 Ω
Mixed ports	3.5 mm / Type-N / 7-16 via port option codes 101–406 class
Switching	solid-state

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

performance examples (Opt 010 / 020 tables in OEM datasheet) include directivity typically 40-55 dB class and reflection tracking on the order of ± 0.03 to ± 0.11 dB depending on band

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	N4431B
Manufacturer	Keysight / Agilent
Instrument Type	4-Port Electronic Calibration Module
Alias	N4431B; Agilent N4431B; Keysight N4431B

Specifications

PARAMETER	VALUE
Frequency range	9 kHz to 13.5 GHz
Ports	4
Opt 010 connectors	3.5 mm (f)
Opt 020 connectors	Type-N 50 Ω (f)

7-16 high frequency limit: 7.5 GHz
Interface: USB to VNA
Calibration: 1-4 port single connection

Notes
Specs from Keysight ECal technical overview and N4431B product literature. Confirm connector option (010/020/mixed) and cal due date on the module.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.